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## **AMENDMENTS TO THE CLAIMS**

Please replace all prior versions and listings of claims with the amended claims as follows:

1-46. (Canceled)

47. (Currently amended) A composition comprising an effective amount of a compound of formula **I**:

]

or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, adjuvant, or vehicle, wherein:

 $R^{1}$  is  $-(L)_{m}R$ ,  $-(L)_{m}Ar^{1}$ , or  $-(L)_{m}Cy^{1}$ ;

L is -S-, -O-, -N(R)-, or a  $C_{1-6}$  alkylidene chain wherein up to two non-adjacent methylene units of L are optionally and independently replaced by -S-, -O-, -N(R)-, -N(R)C(O)-,

 $-N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO_2-, -C(O)-, -CO_2-,$ 

 $-C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO_2-, -SO_2N(R)-, -N(R)SO_2-, \\$ 

 $-N(R)SO_2N(R)$ -, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or  $-C(O)CH_2C(O)$ -;

m is 0 or 1;

Ar<sup>1</sup> is an optionally substituted 5-7 membered monocyclic ring or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

Cy<sup>1</sup> is an optionally substituted 3-7 membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen,

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oxygen, or sulfur, or an 8-10 membered saturated or partially unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein;

Ar<sup>1</sup> and Cy<sup>1</sup> are each optionally substituted with up to 5 occurrences of Z-R<sup>X</sup>; wherein

each occurrence of Z is independently a bond or a  $C_{1\mbox{-}6}$  alkylidene chain, wherein up to

two non-adjacent methylene units of Z are optionally replaced by -S-, -O-, -N(R)-,

-N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-,  $-N(R)CO_2-$ , -C(O)-,

 $-CO_2-$ , -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-,  $-SO_2-$ ,  $-SO_2N(R)-$ ,  $-N(R)SO_2-$ ,

 $-N(R)SO_2N(R)$ -, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or  $-C(O)CH_2C(O)$ -;

each occurrence of R<sup>X</sup> is independently selected from -R', halogen, NO<sub>2</sub>, CN, -OR', -SR',

 $-N(R')_2, -N(R')C(O)R', -N(R')C(S)R', -N(R')C(O)N(R')_2, -N(R')C(S)N(R')_2, -N(R')C(S)N$ 

 $-N(R')CO_2R'$ , -C(O)R', -C(S)R',  $-CO_2R'$ , -OC(O)R',  $-C(O)N(R')_2$ ,  $-C(S)N(R')_2$ ,

 $-OC(O)N(R')_2$ , -S(O)R',  $-SO_2R'$ ,  $-S(O)_3R'$ ;  $-SO_2N(R')_2$ ,  $-N(R')SO_2R'$ ,

 $-N(R')SO_2N(R')_2$ , -C(O)C(O)R',  $-C(O)CH_2C(O)R'$ , -NR'NR'C(O)R',

-NR'NR'C(O)N(R')<sub>2</sub>, -NR'NR'CO<sub>2</sub>R', -C(O)N(OR') R', -C(NOR') R', -S(O)<sub>3</sub>R,

-N(OR')R',  $-C(=NH)-N(R')_2$ ; or  $-(CH_2)_{0-2}NHC(O)R'$ ; wherein

each occurrence of R is independently hydrogen or an optionally substituted C<sub>1-6</sub> aliphatic group,

- each occurrence of R' is independently hydrogen or an optionally substituted  $C_{1-6}$  aliphatic group, an optionally substituted  $C_{6-10}$  aryl ring, an optionally substituted heteroaryl ring having 5-10 ring atoms, or an optionally substituted heterocyclyl ring having 3-10 ring atoms; or
- R and R' or two occurrences of either R or R' are taken together with the atoms to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 0-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or

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two occurrences of either R' or R on the same nitrogen are taken together with the nitrogen atom to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

 $R^2$  is hydrogen, CN, -SR, -OR, -CO<sub>2</sub>R, -OC(O)R, -C(O)R, -C(O)N(R)<sub>2</sub>, -N(R)<sub>2</sub>, or -N(R)C(O)R, or an optionally substituted C<sub>1-6</sub> aliphatic group;

T is  $CR^3$ ;

each of A<sup>1</sup>, A<sup>2</sup>, and A<sup>3</sup> is, independently, CR<sup>4</sup>;

 $R^3$  is selected from hydrogen, halogen, NO<sub>2</sub>, CN, -SR, -OR, -N(R)<sub>2</sub>, or an optionally substituted  $C_{1-6}$  aliphatic group; and

R<sup>4</sup> is selected from halogen, NO<sub>2</sub>, CN, -(L)<sub>m</sub>R, -(L)<sub>m</sub>Ar<sup>1</sup>, or -(L)<sub>m</sub>Cy<sup>1</sup>; or two R<sup>4</sup> groups on adjacent atoms are taken together to form an optionally substituted 5-7 membered partially unsaturated or fully unsaturated ring having 0-3 heteroatoms independently selected from oxygen, sulfur, or nitrogen, wherein;

each ring formed by two R<sup>4</sup> groups on adjacent atoms taken together is optionally substituted with up to 4 occurrences of Z-R<sup>X</sup>.

### 48. (Canceled)

49. (Currently amended) The composition of claim 47, additionally comprising a therapeutic agent selected from a chemotherapeutic or anti-proliferative agent mechlorethamine, chlorambucil, cyclophosphamide, melphalan, ifosfamide, methotrexate, 6-mercaptopurine, 5-fluorouracil, cytarabile, gemcitabine, vinblastine, vincristine, vinorelbine, paclitaxel, etoposide, irinotecan, topotecan, doxorubicin, bleomycin, mitomycin, carmustine, lomustine, cisplatin, carboplatin, asparaginase, and tamoxifen, leuprolide, flutamide, megestrol, imatinib (Gleevec<sup>TM</sup>), adriamycin,

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dexamethasone, or cyclophosphamide, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, a neurotrophic factor, an agent for treating cardiovascular disease, an agent for treating destructive bone disorders, an agent for treating liver disease, an anti-viral agent, an agent for treating blood disorders, an agent for treating diabetes, or an agent for treating immunodeficiency disorders.

50. (Currently amended) A method of inhibiting CDK-2, c\_MET, FLT-3, JAK-3, GSK-3, IRAK-4, SYK, p70S6K, TAK-1, or ZAP-70 kinase activity in a biological sample, wherein said biological sample is selected from a cell culture, biopsied material obtained from a mammal, saliva, urine, feces, semen, or tears, or an extract thereof; which method comprises contacting said biological sample with a composition according to claim 47 or a compound of formula I:

$$A^{1} \xrightarrow{R^{2}} O \xrightarrow{R^{1}}$$

.

or a pharmaceutically acceptable salt thereof, wherein:

 $R^{1}$  is  $-(L)_{m}R$ ,  $-(L)_{m}Ar^{1}$ , or  $-(L)_{m}Cy^{1}$ ;

L is -S-, -O-, -N(R)-, or a  $C_{1-6}$  alkylidene chain wherein up to two non-adjacent methylene units of L are optionally and independently replaced by -S-, -O-, -N(R)-, -N(R)C(O)-,

 $-N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO_2-, -C(O)-, -CO_2-, -C(O)-, -C(O$ 

 $-C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO_2-, -SO_2N(R)-, -N(R)SO_2-, \\$ 

 $-N(R)SO_2N(R)$ -, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or  $-C(O)CH_2C(O)$ -; m is 0 or 1;

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Ar<sup>1</sup> is an optionally substituted 5-7 membered monocyclic ring or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

Cy<sup>1</sup> is an optionally substituted 3-7 membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-10 membered saturated or partially unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein;

Ar<sup>1</sup> and Cy<sup>1</sup> are each optionally substituted with up to 5 occurrences of Z-R<sup>X</sup>; wherein each occurrence of Z is independently a bond or a  $C_{1-6}$  alkylidene chain, wherein up to two non-adjacent methylene units of Z are optionally replaced by -S-, -O-, -N(R)-, -N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO<sub>2</sub>-, -C(O)-,

 $-CO_{2}$ -, -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-,  $-SO_{2}$ -,  $-SO_{2}N(R)$ -,  $-N(R)SO_{2}$ -,

 $-N(R)SO_2N(R)$ -, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or  $-C(O)CH_2C(O)$ -;

each occurrence of RX is independently selected from -R', halogen, NO2, CN, -OR', -SR',

 $-N(R')_2$ , -N(R')C(O)R', -N(R')C(S)R',  $-N(R')C(O)N(R')_2$ ,  $-N(R')C(S)N(R')_2$ ,

 $-N(R')CO_2R'$ , -C(O)R', -C(S)R',  $-CO_2R'$ , -OC(O)R',  $-C(O)N(R')_2$ ,  $-C(S)N(R')_2$ ,

 $-OC(O)N(R')_2$ , -S(O)R',  $-SO_2R'$ ,  $-S(O)_3R'$ ;  $-SO_2N(R')_2$ ,  $-N(R')SO_2R'$ ,

 $-N(R')SO_2N(R')_2$ , -C(O)C(O)R',  $-C(O)CH_2C(O)R'$ , -NR'NR'C(O)R',

-NR'NR'C(O)N(R')<sub>2</sub>, -NR'NR'CO<sub>2</sub>R', -C(O)N(OR') R', -C(NOR') R', -S(O)<sub>3</sub>R,

-N(OR')R', -C(=NH)-N(R')<sub>2</sub>; or -(CH<sub>2</sub>)<sub>0-2</sub>NHC(O)R'; wherein

each occurrence of R is independently hydrogen or an optionally substituted  $C_{1-6}$  aliphatic group,

each occurrence of R' is independently hydrogen or an optionally substituted  $C_{1-6}$  aliphatic group, an optionally substituted  $C_{6-10}$  aryl ring, an optionally substituted heteroaryl ring having 5-10 ring atoms, or an optionally substituted heterocyclyl ring having 3-10 ring atoms; or

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R and R' or two occurrences of either R or R' are taken together with the atoms to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 0-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or

two occurrences of either R' or R on the same nitrogen are taken together with the nitrogen atom to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

 $R^2$  is hydrogen, CN, -SR, -OR, -CO<sub>2</sub>R, -OC(O)R, -C(O)R, -C(O)N(R)<sub>2</sub>, -N(R)<sub>2</sub>, -N(R)C(O)R, or an optionally substituted C<sub>1-6</sub> aliphatic group;

T is CR<sup>3</sup>;

each of A<sup>1</sup>, A<sup>2</sup>, and A<sup>3</sup> is, independently, CR<sup>4</sup>;

 $R^3$  is selected from hydrogen, halogen, NO<sub>2</sub>, CN, -SR, -OR, -N(R)<sub>2</sub>, or an optionally substituted  $C_{1-6}$  aliphatic group; and

R<sup>4</sup> is selected from halogen, NO<sub>2</sub>, CN, -(L)<sub>m</sub>R, -(L)<sub>m</sub>Ar<sup>1</sup>, or -(L)<sub>m</sub>Cy<sup>1</sup>; or two R<sup>4</sup> groups on adjacent atoms are taken together to form an optionally substituted 5-7 membered partially unsaturated or fully unsaturated ring having 0-3 heteroatoms independently selected from oxygen, sulfur, or nitrogen, wherein;

each ring formed by two R<sup>4</sup> groups on adjacent atoms taken together is optionally substituted with up to 4 occurrences of Z-R<sup>X</sup>.

### 51. (Canceled)

52. (Currently amended) A method of treating or lessening the severity of a disease or condition in a patient selected from gastric cancer, pancreatic cancer, ovarian cancer,

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<u>breast cancer</u>, or <u>prostate cancer</u> cancer or a <u>proliferative disorder</u> comprising the step of administering to said patient a composition of claim 47.

53. (Currently amended) The method according to claim 52, comprising the additional step of administering to said patient an additional therapeutic agent selected from mechlorethamine, chlorambucil, cyclophosphamide, melphalan, ifosfamide, methotrexate, 6-mercaptopurine, 5-fluorouracil, cytarabile, gemcitabine, vinblastine, vincristine, vinorelbine, paclitaxel, etoposide, irinotecan, topotecan, doxorubicin, bleomycin, mitomycin, carmustine, lomustine, cisplatin, carboplatin, asparaginase, and tamoxifen, leuprolide, flutamide, megestrol, imatinib (Gleevec<sup>TM</sup>), adriamycin, dexamethasone, or cyclophosphamide a chemotherapeutic or anti-proliferative agent, an anti-inflammatory agent, an immunomodulatory or immunosuppressive agent, a neurotrophic factor, an agent for treating cardiovascular disease, an agent for treating destructive bone disorders, an agent for treating liver disease, an anti-viral agent, an agent for treating blood disorders, an agent for treating diabetes, or an agent for treating immunodeficiency disorders, wherein:

said additional therapeutic agent is appropriate for the disease being treated; and said additional therapeutic agent is administered together with said composition as a single dosage form or separately from said composition as part of a multiple dosage form.

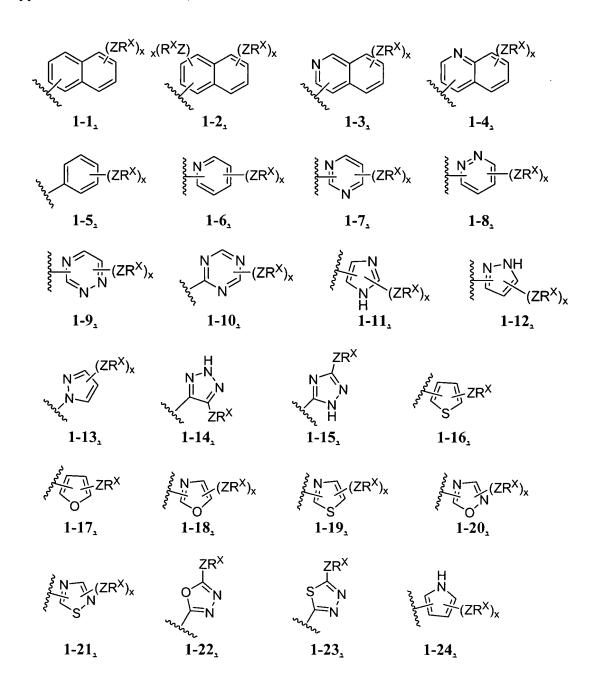
54-58. (Canceled)

59. (Currently amended) The composition according to claim 47, wherein R<sup>1</sup> is -(L)<sub>m</sub>Ar<sup>1</sup> and Ar<sup>1</sup> is selected from one of the following groups:

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$$Z_{Z_{2}}$$
 $Z_{Z_{2}}$ 
 $Z_{Z_{2}}$ 

# wherein x is 0-5.

60. (Currently amended) The composition according to claim 59, wherein Ar<sup>1</sup> is selected from one of the following groups:

$$1-5, \qquad 1-6, \qquad 1-7, \qquad 1-19,$$

$$1-24, \qquad \text{or } 1-26,$$

# wherein x is 0-5.

61. (Previously presented) The composition according to claim 59, wherein  $R^1$  is  $-(L)_m$ -Ar $^1$ , m is 1 and compounds have the formula IA-1:

$$A^{1} \xrightarrow{R^{2}} A^{3} \xrightarrow{O} (L) - Ar^{1}$$

$$IA-1.$$

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62. (Currently amended) The composition according to claim 59, wherein Ar<sup>1</sup> is phenyl with 0-5 occurrences of ZR<sup>X</sup> and compounds have the formula IA-1-5:

$$A_{A_{2}A_{3}}^{1} \xrightarrow{N(OH)} R^{2}$$

$$(ZR^{X})_{x}$$

IA-1-5,

# wherein x is 0-5.

63. (Previously presented) The composition according to claim 47, wherein R<sup>1</sup> is -(L)<sub>m</sub>-Cy<sup>1</sup> and compounds have the formula IA-2:

$$A^{1} \xrightarrow{T} O (L)_{m} \cdot Cy^{1}$$

$$IA-2 .$$

64. (Currently amended) The composition according to claim 63, wherein Cy<sup>1</sup> is selected from one of the following groups:

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$$(ZR^{X})_{x}$$

$$(ZR^$$

## wherein x is 0-5.

- 65. (Previously presented) The composition according to claim 59, wherein L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCS, NRCONR, NRCSNR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, CSNR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O).
- 66. (Previously presented) The composition according to claim 65, wherein L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, CO, CONR, SO<sub>2</sub>NR, NRSO<sub>2</sub>.
- 67. (Previously presented) The composition according to claim 47, wherein  $R^1$  is  $-(L)_m R$ , L is an optionally substituted  $C_{1-6}$  straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, and R is an optionally substituted  $C_{1-6}$  aliphatic group.
- 68. (Currently amended) The composition according to claim 47, wherein  $R^2$  is hydrogen, -CN, -OR, -CO<sub>2</sub>R, -OC(O)R, -C(O)R, -C(O)N(R)<sub>2</sub>, -N(R)<sub>2</sub>, or -N(R)C(O)R, or an optionally substituted  $C_{1-6}$  aliphatic group.

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69-70. (Canceled)

71. (Previously presented) The composition according to claim 47, wherein  $R^2$  is hydrogen and compounds have the formula **IB**:

$$A^{1} \xrightarrow{T} O R^{1}$$

$$IB.$$

- 72. (Previously presented) The composition according to claim 47, wherein T is  $CR^3$  and  $R^3$  is hydrogen, halogen, CN, or an optionally substituted  $C_{1-6}$  aliphatic group.
- 73. (Previously presented) The composition according to claim 72, wherein R<sup>3</sup> is hydrogen, halogen, CF<sub>3</sub>, methyl, ethyl, n-propyl, isopropyl, or cyclopropyl.
- 74. (Previously presented) The composition according to claim 47, wherein T is CR<sup>3</sup>, R<sup>3</sup> is hydrogen and compounds have the formula **IC**:

$$A^{1} \xrightarrow{N(OH)} R^{2}$$

$$A^{2} \xrightarrow{A^{3}} O \qquad R^{1}$$

IC.

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75. (Previously presented) The composition according to claim 47, wherein  $A^1$  is  $CR^4$  and  $R^4$  is halogen, CN,  $-(L)_mR$ ,  $-(L)_mAr^1$ , or  $-(L)_mCy^1$ .

- 76. (Previously presented) The composition according to claim 75, wherein L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O).
- 77. (Previously presented) The composition according to claim 75, wherein A<sup>1</sup> is CR<sup>4</sup> and R<sup>4</sup> is halogen, CN, or R.
- 78. (Previously presented) The composition according to claim 75, wherein  $A^1$  is  $CR^4$ ,  $R^4$  is  $-(L)_mR$ , and compounds have the formula **ID-1**:

79. (Previously presented) The composition according to claim 75, wherein  $A^{1}$  is  $CR^{4}$ ,  $R^{4}$  is  $-(L)_{m}Ar^{1}$ , and compounds have the formula **ID-2**:

$$Ar_{\parallel}^{1}$$
  $N(OH)$   $R^{2}$   $A^{2}$   $A^{3}$   $O$   $R^{1}$   $ID-2$  .

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80. (Previously presented) The composition according to claim 75, wherein  $A^1$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , and compounds have the formula **ID-3**:

$$Cy^1$$
 $M(OH)$ 
 $R^2$ 
 $A^2$ 
 $A^3$ 
 $O$ 
 $R^1$ 

- 81. (Previously presented) The composition according to claim 47, wherein  $A^2$  is  $CR^4$  and  $R^4$  is halogen, CN,  $-(L)_mR$ ,  $-(L)_mAr^1$ , or  $-(L)_mCy^1$ .
- 82. (Previously presented) The composition according to claim 81, wherein L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O).
- 83. (Previously presented) The composition according to claim 81, wherein A<sup>2</sup> is CR<sup>4</sup> and R<sup>4</sup> is halogen or R.
- 84. (Previously presented) The composition according to claim 81, wherein  $A^2$  is  $CR^4$  and  $R^4$  is  $-(L)_mR$ , wherein L is -O- or -N(R)-.
- 85. (Previously presented) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , m is 0 and  $Cy^1$  is 2-2, 2-5, 2-6, 2-7, 2-8, or 2-12.

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- 86. (Previously presented) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , m is 0 and  $Ar^1$  is 1-5, 1-6, 1-11, 1-12, 1-13, 1-19, 1-24, or 1-25.
- 87. (Previously presented) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mR$ , and compounds have the formula **IE-1**:

$$\begin{array}{c|c}
& N(OH) \\
& R^2 \\
& R^1
\end{array}$$

IE-1.

88. (Previously presented) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , and compounds have the formula **IE-2**:

$$\begin{array}{c|c}
& N(OH) \\
& R^2 \\
& R^1 \\
& Ar^1
\end{array}$$

IE-2.

89. (Previously presented) The composition according to claim 81, wherein  $A^2$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , and compounds have the formula **IE-3**:

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- 90. (Previously presented) The composition according to claim 47, wherein  $A^3$  is  $CR^4$  and  $R^4$  is halogen, CN,  $-(L)_mR$ ,  $-(L)_mAr^1$ , or  $-(L)_mCy^1$ .
- 91. (Previously presented) The composition according to claim 90, wherein L is an optionally substituted C<sub>1-6</sub> straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO<sub>2</sub>, CO, CO<sub>2</sub>, CONR, OC(O)NR, SO<sub>2</sub>, SO<sub>2</sub>NR, NRSO<sub>2</sub>, NRSO<sub>2</sub>NR, C(O)C(O), or C(O)CH<sub>2</sub>C(O).
- 92. (Previously presented) The composition according to claim 90, wherein A<sup>3</sup> is CR<sup>4</sup> and R<sup>4</sup> is halogen or R.
- 93. (Previously presented) The composition according to claim 90, wherein  $A^3$  is  $CR^4$  and  $R^4$  is  $-(L)_mR$ , wherein L is -O- or -N(R)-.
- 94. (Previously presented) The composition according to claim 90, A<sup>3</sup> is CR<sup>4</sup>, R<sup>4</sup> is -(L)<sub>m</sub>Cy<sup>1</sup>, m is 0 and Cy<sup>1</sup> is 2-2, 2-5, 2-6, 2-7, 2-8, or 2-12.
- 95. (Previously presented) The composition according to claim 90, wherein  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , m is 0 and  $Ar^1$  is 1-5, 1-6, 1-11, 1-12, 1-13, 1-19, 1-24, or 1-25.

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96. (Previously presented) The composition according to claim 90, wherein  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mR$ , and compounds have the formula **IF-1**:

97. (Previously presented) The composition according to claim 90, wherein  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mAr^1$ , and compounds have the formula **IF-2**:

$$Ar^{1-(L)_{m}} I$$
F

**IF-2**.

98. (Previously presented) The composition according to claim 90, wherein  $A^3$  is  $CR^4$ ,  $R^4$  is  $-(L)_mCy^1$ , and compounds have the formula **IF-3**:

$$\begin{array}{c|c}
& N(OH) \\
& R^2 \\
& Q \\
& R^1 \\
& Cy^{1\cdot(L)_m} I \\
& IF-3 .
\end{array}$$

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99. (Previously presented) The composition according to claim 47, wherein T is CR<sup>3</sup>, A<sup>1</sup>, A<sup>2</sup> and A<sup>3</sup> are each CR<sup>4</sup> and compounds have the formula **IG-1**:

$$R^4$$
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 
 $R^4$ 

**IG-1** .

100. (Previously presented) The composition according to claim 47, wherein each  $ZR^X$  is independently halogen, NO<sub>2</sub>, CN, or an optionally substituted group selected from C<sub>1-4</sub> alkyl, aryl, aralkyl, -N(R')<sub>2</sub>, -CH<sub>2</sub>N(R')<sub>2</sub>, -OR', -CH<sub>2</sub>OR', -SR', -CH<sub>2</sub>SR', -COOR', or -S(O)<sub>2</sub>N(R')<sub>2</sub>.

101. (Currently amended) The composition according to claim 47, selected from one of the following compounds:

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